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EXAMINER	
GUILL, RUSSELL L	

ART UNIT	PAPER NUMBER
2123	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/020,601	WHITNEY, KRISTOPHER CRAIG	
	Examiner	Art Unit	
	Russell L. Guill	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-24* is/are rejected.

7)☒ Claim(s) *3* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to an Amendment filed September 15, 2005. This Office Action is non-final. No claims have been amended or canceled. Claim 24 is new. Claims 1 – 24 have been examined. Claims 1 – 2 and 4 - 24 have been rejected. Claim 3 has been objected to.

Response to Remarks

2. Regarding **claims 1 - 13** rejected under 35 USC § 103:

2.1. The Applicant argues that: the cited references fail to disclose or suggest a plug-in module capable of both connecting a handheld computer to an adapter on a logically-partitioned computer and storing program code configured to emulate a console for a logical partition in a logically-partitioned computer. Nor do the cited references disclose or suggest that a handheld computer may be configured to emulate such a console using program code that is resident in a plug-in module coupled to the handheld computer. None of the references disclose or suggest, alone or in combination, a plug-in module that includes program code capable of being used to enable a device coupled to the module to emulate a console over an interface that is also provided in the plug-in module. The fact that the prior art may disclose that program code may be used to emulate a console, still falls short of teaching that a plug-in module for a handheld computer may include program code that is specifically used to configure that handheld computer to emulate a console.

2.1.1. The Examiner respectfully replies that the references teach the claimed invention as follows:

2.1.1.1. Mills teaches a plug-in module coupled to a handheld computer using program code resident in the plug-in module, and an IO connector on the plug-in

module used connected to a local host computer (***figure 7; figure 8; and column 3, lines 55 – 67; and column 7, lines 30 – 35***).

2.1.1.2. Kauffman teaches connecting a personal computer to an adapter on a logically-partitioned computer connected to the adapter via a cable (***figure 2; and column 7, lines 45 – 60***).

2.1.1.3. MochaPocketTN5250 teaches configuring a handheld computer to emulate a console using program code (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

2.1.1.4. It would have been obvious to an ordinary artisan at the time of invention to use the art of Kauffman and the art of MochaPocketTN5250 with the art of Mills to produce:

2.1.1.4.1. Connecting a handheld computer to an adapter on a logically-partitioned computer via a plug-in module coupled to the handheld computer and connected to the adapter via a cable.

2.1.1.4.2. Configuring the handheld computer to emulate a console for a logical partition in the logically-partitioned computer using program code resident in the plug-in module.

2.2. The Applicant argues that the motivation to combine references is insufficient because it does not appreciate the desirability or benefits of using a plug-in module that is specifically configured to provide the interface to the logically-partitioned computer and to provide program code that is capable of configuring the device to which the module is attached to emulate a console.

2.2.1. The Examiner respectfully replies that the recited benefit of versatility in paragraphs 3.9 and 3.10 is a benefit that would have been in the knowledge of an ordinary artisan at the time of invention. However, Kauffman also recites the benefit of providing a computer system design which provides improved flexibility, resource availability and scalability (column 4, lines 24 – 26), and this additional motivation is cited in this Office Action. Additionally, Mills cites the benefits of providing both I/O and memory functions in a single closed-case removable expansion card, which increases the expansion functional density for portable computer hosts, such as PDAs. That is, it increases the amount of functionality that can be accommodated within a given volume allocation for expansion devices. It also provides a viable alternative to 2-slot implementations (**column 3, lines 55 – 67; and column 4, lines 1 – 2**). Also, the use of removable memory devices may provide the best solution to rapidly reconfiguring an application-specific expansion card to initiate a large program or use large data sets. The use of labeled, color-coded, or otherwise distinctive, removable memory devices also may provide the best solution for ease of use for users needing to select a particular program or data set from many for reconfiguring an application specific expansion card (**column 7, lines 54 – 64**). These additional motivations are cited in this Office Action.

2.3. Accordingly, the rejection of claims 1 – 2, 4 – 9 and 11 - 12 is maintained. Claims 3, 10 and 13 are addressed below.

3. Regarding **claim 3** rejected under 35 USC § 103:

3.1. The Applicant's arguments have been fully considered, and are persuasive. The rejection of claim 3 has been withdrawn.

4. Regarding **claim 10** rejected under 35 USC § 103:

4.1. The Applicant argues that Kauffman teaches away from the Applicant's claimed invention because Kauffman eliminates the need for multiple workstations through a different mechanism (a multiplexer).

4.1.1. The Examiner respectfully replies:

4.1.1.1. A multiplexer includes a multiport switch which is turned from one position to another position in order to switch a console between different ports, which constitutes disconnecting the cable from a first adapter and connecting the cable to a second adapter. This operation is space-division multiplexing.

4.1.1.2. Further, an ordinary artisan would have been motivated to search for a lower cost alternative solution to a multiplexer, and it would have been obvious to simply disconnect a cable from a first adapter and connect the cable to a second adapter.

4.2. Accordingly, the rejection is maintained.

5. Regarding **claim 13** rejected under 35 USC § 103:

5.1. The Applicant's arguments have been fully considered, and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as recited in the claim rejections below.

6. Regarding **claim 14** rejected under 35 USC § 103:

6.1. The Applicant argues that claim 14 is allowable for the same reasons cited for claim 1 above.

6.1.1. The Examiner respectfully replies that the rejection of claim14 is maintained for the same reasons recited for claim 1 above.

7. Regarding **claims 15 - 23** rejected under 35 USC § 103:

7.1. The Applicant's arguments have been fully considered, and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made for **claims 15 – 23** as recited in the claim rejections below.

Claim Rejections - 35 USC § 112

7.2. Claim 19 contains the trademark/trade names Springboard and Visor. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a plug-in module (Springboard) and a hand-held computer (Visor) and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

> subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), in view of Kauffman (U.S. Patent Number 6,633,916), further in view of MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S).

9.1. The art of Kauffman is directed toward a method and apparatus for virtual resource handling in a multi-processor computer (***Title***), including providing a console (***column 7, lines 45 – 60***).

9.2. The art of MochaPocketTN5250 is directed to software to emulate a 5250 terminal on a handheld computer (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

9.3. The art of Mills is directed to a plug-in expansion card for a handheld computer that incorporates both a memory expansion card and an IO connector (***Abstract, and figure 7***).

9.4. Mills appears to teach a plug-in module coupled to a handheld computer using program code resident in the plug-in module, and an IO connector on the plug-in module used connected to a local host computer (***figure 7; figure 8; and column 3, lines 55 – 67; and column 7, lines 30 – 35***).

9.5. Mills does not specifically teach ***connecting a handheld computer to an adapter on a logically-partitioned computer via*** a plug-in module coupled to the handheld computer ***and connected to the adapter via a cable***.

9.6. Mills does not specifically teach ***configuring the handheld computer to emulate a console for a logical partition in the logically-partitioned computer using program code resident in the plug-in module***.

9.7. Kauffman appears to teach connecting a personal computer to an adapter on a logically-partitioned computer connected to the adapter via a cable (***figure 2; and column 7, lines 45 – 60***).

9.8. MochaPocketTN5250 appears to teach configuring a handheld computer to emulate a console using program code (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

9.9. The motivation to use the art of Kauffman with the art of Mills is the statement in Kauffman that a personal computer can be used as the console (***column 7, lines 55 – 60***), which provides the benefit of a versatile multi-purpose device compared to a fixed terminal. Kauffman also recites the benefit of providing a computer system design which provides improved flexibility, resource availability and scalability (***column 4, lines 24 – 26; and column 5, lines 40 - 50***).

9.10. The motivation to use the art of MochaPocketTN5250 with the art of Mills is the statement in Kauffman that a personal computer can be used as the console (***column 7, lines 55 – 60***). Additionally, Mills cites the benefits of providing both I/O and memory functions in a single closed-case removable expansion card, which increases the expansion functional density for portable computer hosts, such as PDAs (***column 3, lines 60 – 67***). That is, the invention increases the amount of functionality that can be accommodated within a given volume allocation for expansion devices (***column 3, lines 60 – 67***). It also provides a viable alternative to 2-slot implementations (***column 3, lines 60 – 67***). Additionally, the invention provides the benefit that it enable a general-purpose portable

host to perform application-specific functions requiring dedicated ROM (**column 7, lines 25 – 30**). Also, the use of removable memory devices may provide the best solution to rapidly reconfiguring an application-specific expansion card to initiate a large program or use large data sets (***column 7, lines 54 – 63***). The use of labeled, color-coded, or otherwise distinctive, removable memory devices also may provide the best solution for ease of use for users needing to select a particular program or data set from many for reconfiguring an application specific expansion card (***column 7, lines 54 – 63***).

9.11. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Kauffman and MochaPocketTN5250 with the art of Mills to produce the claimed inventions.

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), in view of Armstrong (U.S. Patent 6,279,046).

10.1. The art of Armstrong is directed to an event driven interface for a logically-partitioned computer (***Title***).

10.2. Mills does not specifically teach a logically-partitioned AS/400-compatible midrange computer, and an adapter that comprises a workstation adapter allocated to the at least one logical partition.

10.3. Kauffman appears to teach an adapter that comprises a workstation adapter allocated to the at least one logical partition (***figure 2, and column 7, lines 45 – 60***).

10.4. Armstrong appears to teach a logically-partitioned AS/400-compatible midrange computer (***figure 1, and column 3, lines 32 – 48***).

10.5. The motivation to use the art of Armstrong with the art of Mills is the statement in Armstrong that a workstation is connected to the computer (***figure 1, element 28; and column 3, lines 49 – 64***).

10.6. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Mills and the art of Armstrong to produce the claimed invention.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and Dye (U.S. Patent 6,145,069) in view of Armstrong (U.S. Patent 6,279,046).

11.1. Claim 4 is a dependent claim of claim 3, and thereby inherits all of the rejected limitations of claim 3.

11.2. The art of Armstrong is directed to an event driven interface for a logically-partitioned computer (***Title***).

11.3. Mills does not specifically teach that the handheld computer emulates a 5250-compatible console that communicates with an AS/400-compatible midrange computer.

11.4. Armstrong appears to teach an AS/400-compatible midrange computer (***figure 1, and column 3, lines 32 – 48***).

11.5. MochaPocketTN5250 appears to teach configuring a handheld computer to emulate a 5250-compatible console (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

11.6. The motivation to use the art of Armstrong with the art of Mills is the statement in Armstrong that a workstation is connected to the computer (***figure 1, element 28; and column 3, lines 49 – 64***), and the graphic in Mills that the handheld is connected to a local host computer (***figure 8***), which provides a portable low-cost alternative to a workstation.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), in view of Powderly (U.S. Patent Number 6,732,067).

12.1. The art of Powderly is directed toward a system and adapter card for remote console emulation (***Title***).

12.2. Mills appears to teach a handheld computer with a network interface on a plug-in module (***figure 8, and column 5, lines 60 – 65***).

12.3. Mills does not specifically teach that connecting a handheld computer ***to an adapter comprises attaching the cable to the adapter and to a network interface on the plug-in module***.

12.4. Powderly appears to teach that connecting a console to an adapter comprises attaching the cable to the adapter and to a network interface on a console (***Abstract, and column 1, lines 29 – 35***).

12.4.1. Regarding (***Abstract, and column 1, lines 29 – 35***); it would have been obvious that a network consists of a cable connected between the adapter and the console.

12.5. The motivation to use the art of Powderly with the art of Mills is the configuration shown in Mills, figure 8, element labeled "Internet, or other network", that displays a handheld computer attached to a network.

12.6. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Mills and with the art of Powderly to produce the claimed invention.

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and Powderly (U.S. Patent Number 6,732,067), in view of Comp (U.S. Patent Number 5,875,350).

13.1. The art of Comp is directed to compressed message exchange initiated by basic command accompanied by enhancement code (***Title***).

13.2. Mills does not specifically teach that a network interface comprises a Twinax-compatible interface suitable for communicating with an AS/400-compatible midrange computer.

13.3. Comp appears to teach that a network interface comprises a Twinax-compatible interface suitable for communicating with an AS/400-compatible midrange computer (***figure 6; and column 4, lines 55 – 68; and column 5, lines 1 – 25***)

13.4. The motivation to use the art of Comp with the art of Mills is the ability to increase the communications speeds with minimal upgrading of components (***Comp, column 2, lines 15 – 24***).

14. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), in view of common knowledge in the art.

14.1. Mills does not specifically teach authenticating with a logical partition via an emulated console.

14.2. Official Notice is taken that it was old and well known to the ordinary artisan at the time of invention to authenticate by a userid and password in order to gain access to a computer. The motivation is to prevent damage to a computer system by unauthorized people.

15. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S).

15.1. Claim 8 is a dependent claim of claim 1, and thereby inherits all of the rejected limitations of claim 1.

15.2. Claim 9 is a dependent claim of claim 8, and thereby inherits all of the rejected limitations of claim 8.

15.3. Regarding claim 8, Mills does not specifically teach performing a system administration operation on the logical partition via the emulated console.

15.4. Regarding claim 9, Mills does not specifically teach performing a second system administrative operation on a second logical partition in the logically-partitioned computer.

15.5. Regarding claim 8, Kauffman appears to teach performing a system administration operation on the logical partition via the emulated console (***column 7, lines 3 – 16***).

15.5.1. Regarding (***column 7, lines 3 – 16***); it would have been obvious that the system administration is performed by the emulated console.

15.6. Regarding claim 9, Kauffman appears to teach performing a second system administrative operation on a second logical partition in the logically-partitioned computer (***column 9, lines 4 – 11***).

16. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), in view of common knowledge in the art.

16.1. Claim 10 is a dependent claim of claim 9, and thereby inherits all of the rejected limitations of claim 9.

16.2. Mills does not specifically teach the method of claim 9 wherein the first adapter is allocated to the first logical partition, and the logically-partitioned computer includes a second adapter allocated to the second logical partition, and further comprising, after performing the first system administration operation, disconnecting the cable from the first adapter and connecting the cable to the second adapter, wherein performing a second system administration operation is performed via the handheld computer and plug-in module interacting with the second logical partition through the second adapter.

16.3. Kauffman appears to teach that the first adapter is allocated to the first logical partition, and the logically-partitioned computer includes a second adapter allocated to the second logical partition (***figure 2***).

16.4. Official Notice is taken that was old and well known to the ordinary artisan at the time of invention to disconnect a cable from one port and connect the cable to a second port. The motivation is to obtain the benefit of reduced cost by needing only a single console for the multiple logical partitions.

17. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), in view of Laity (U.S. Patent Publication Number 2001/0000161).

17.1. Claim 11 is a dependent claim of claim 9, and thereby inherits all of the rejected limitations of claim 9.

17.2. The art of Laity is directed to a PCMCIA card with integrated receptacles for receiving standard communications plugs (***Title***).

17.3. Mills does not specifically teach the method of claim 9, wherein the first adapter is allocated to the first logical partition, wherein the logically-partitioned computer includes a second adapter allocated to the second logical partition, wherein the plug-in module includes a first and second network interfaces, wherein the first cable is coupled to the first network interface, the method further comprising, prior to performing the second system administration operation, connecting a second cable between the second adapter and the second network interface, wherein performing the second system administration operation is performed via the handheld computer and plug-in module interacting with the second logical partition through the second adapter, and while the first cable is coupled between the first adapter and first network interface.

17.4. Kauffman appears to teach that the first adapter is allocated to the first logical partition, wherein the logically-partitioned computer includes a second adapter allocated to the second logical partition (***figure 2***).

17.5. Laity appears to teach a plug-in module that includes a first and second network interfaces, wherein the first cable is coupled to the first network interface, and, prior to performing the second system administration operation, connecting a second cable between the second adapter and the second network interface, wherein performing the second system administration operation is performed via the handheld computer and plug-in module interacting with the second logical partition through the second adapter, and while the first cable is coupled between the first adapter and first network interface (***figure 1; and paragraph [0003], especially the sentence that starts with, "Presently, Type II cards are used . . . "***).

17.5.1. Regarding (***figure 1; and paragraph [0003], especially the sentence that starts with, "Presently, Type II cards are used . . . "***); it would have been obvious that prior to performing the second system administration operation, a second cable must be connected between the second adapter and the second network interface. It also would have been obvious to have the first cable coupled between the first adapter and first network interface while performing the second system administration operation. Also, since the prior parent claims use the handheld computer performing as a console, it would have been obvious that the second system administration operation is performed via the handheld computer and plug-in module interacting with the second logical partition through the second adapter.

17.6. The motivation to use the art of Laity with the art of Mills is the benefit of not needing to swap cables when performing system administration on two logical partitions.

Additionally, it allows two sessions to be carried on simultaneously on the emulated console.

18. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S).

18.1. Claim 12 is a dependent claim of claim 9, and thereby inherits all of the rejected limitations of claim 9.

18.2. Mills does not specifically teach the method of claim 9, wherein the first adapter is allocated to the first logical partition, wherein the logically-partitioned computer includes a second adapter allocated to the second logical partition, the method further comprising:

18.2.1. Connecting a second handheld computer to the second adapter via a second plug-in module coupled to the second handheld computer; and

18.2.2. Configuring the second handheld computer to emulate a second console for the second logical partition in the logically-partitioned computer using program code resident in the second plug-in module.

18.3. Kauffman appears to teach that a first adapter is allocated to the first logical partition, wherein the logically-partitioned computer includes a second adapter allocated to the second logical partition (***figure 2***).

18.4. Kauffman appears to teach connecting a second handheld computer to the second adapter via a second plug-in module coupled to the second handheld computer (***column 7, lines 55 – 57***).

18.4.1. Regarding (***column 7, lines 55 – 57***); since the parent claim 9 used a handheld computer with a plug-in module, it would have been obvious to use a second handheld computer connecting to a second adapter via a second plug-in module coupled to the second handheld computer.

18.5. Kauffman appears to teach configuring the second handheld computer to emulate a second console for the second logical partition in the logically-partitioned computer using program code resident in the second plug-in module (***column 7, lines 55 – 57***).

18.5.1. Regarding (***column 7, lines 55 – 57***); since the parent claim 9 used a handheld computer to emulate a console for logical partition in the logically-partitioned computer using program code resident in the second plug-in module, it would have been obvious to configure a second handheld computer to emulate a second console for the second logical partition in the logically-partitioned computer using program code resident in the second plug-in module.

19. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), further in view of common knowledge in the art.

19.1. Mills does not specifically teach performing the first and second system administration operations while a user is concurrently authenticated to the first and second logical partitions.

19.2. Official Notice is taken that it was common knowledge in the art at the time of invention to simultaneously authenticate a user with two separate logon sessions on a single computer using a single terminal. The motivation would have been the benefit of

allowing easy coordination of related actions being implemented through the two logon sessions.

19.3. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use common knowledge in the art with the art of Mills and Kauffman and MochaPocketTN5250 and to produce the claimed invention.

20. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), in view of MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), further in view of common knowledge in the art.

20.1. The art of Mills is directed to a plug-in expansion card for a handheld computer that incorporates both a memory expansion card and an IO connector (***Abstract, and figure 7***).

20.2. The art of MochaPocketTN5250 is directed to software to emulate a 5250 terminal on a handheld computer (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

20.3. Mills appears to teach a plug-in module for a handheld computer comprising:

20.3.1. a network interface configured to receive a network connector (***Column 5, lines 61 – 62; and figure 8, element labeled "Internet, or other network"***), and

20.3.2. a memory (***figure 7***), and

20.3.3. program code resident in the memory (***column 7, lines 30 – 32***).

20.4. Mills does not specifically teach program code resident in the memory ***and configured to control a handheld computer to emulate a console that communicates with a multi-user computer over the network interface***.

20.5. MochaPocketTN5250 appears to teach configuring a handheld computer to emulate a console using program code (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

20.6. Official Notice is taken that it was old and well known in the art at the time of invention to communicate with a multi-user computer over a network interface (e.g., a file server), as shown in Mills, figure 8, box labeled "Internet, or other Network". The motivation would have been the benefit of allowing multiple terminals to remotely access a common central resource thereby reducing the expense of duplication of equipment and data, and allowing data sharing, as was common knowledge to the ordinary artisan at the time of invention.

20.7. The motivation to use the art of MochaPocketTN5250 with the art of Mills would have been the benefits recited in Mills of providing both I/O and memory functions in a single closed-case removable expansion card, which increases the expansion functional density for portable computer hosts, such as PDAs. That is, it increases the amount of functionality that can be accommodated within a given volume allocation for expansion devices. It also provides a viable alternative to 2-slot implementations (**column 3, lines 55 – 67; and column 4, lines 1 – 2**). Also, the use of removable memory devices may provide the best solution to rapidly reconfiguring an application-specific expansion card to initiate a large program or use large data sets. The use of labeled, color-coded, or otherwise distinctive, removable memory devices also may provide the best solution for ease of use for users needing to select a particular program or data set from many for reconfiguring an application specific expansion card (**column 7, lines 54 – 63**). An additional benefit is that the invention of Mills enables general-purpose portable hosts to perform application specific functions requiring dedicated ROM (**column 7, lines 25 – 30**).

20.8. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of MochaPocketTN5250 and common knowledge in the art with the art of Mills to produce the claimed invention.

21. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870) and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and common knowledge in the art, in view of Comp (U.S. Patent Number 5,875,350).

21.1. Claim 16 is a dependent claim of claim 15, and thereby inherits all of the rejected limitations of claim 15.

21.2. The art of Comp is directed to compressed message exchange initiated by basic command accompanied by enhancement code (***Title***).

21.3. Mills does not specifically teach that a network interface comprises a twinaxial interface, and the network connector comprises a twinaxial connector.

21.4. Comp appears to teach that a network interface comprises a twinaxial interface, and the network connector comprises a twinaxial connector (***figure 6; and column 4, lines 55 - 68; and column 5, lines 1 - 25***)

21.5. The motivation to use the art of Comp with the art of Mills is the ability to increase the communications speeds with minimal upgrading of components (***Comp, column 2, lines 15 - 24***).

22. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870) and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and common knowledge in the art, and Comp (U.S. Patent Number 5,875,350).

22.1. Claim 17 is a dependent claim of claim 16, and thereby inherits all of the rejected limitations of claim 16.

22.2. Mills does not specifically teach that a network interface comprises a Twinax-compatible interface suitable for communicating with an AS/400-compatible midrange computer, and the network connector comprises a Twinax-compatible connector.

22.3. Comp appears to teach that a network interface comprises a Twinax-compatible interface suitable for communicating with an AS/400-compatible midrange computer, and the network connector comprises a Twinax-compatible connector (***figure 6; and column 4, lines 55 – 68; and column 5, lines 1 – 25***).

22.4. The motivation to use the art of Comp with the art of Mills is the ability to increase the communications speeds with minimal upgrading of components (***Comp, column 2, lines 15 – 24***).

23. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870) and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and common knowledge in the art, and Comp (U.S. Patent Number 5,875,350).

23.1. Claim 18 is a dependent claim of claim 15, and thereby inherits all of the rejected limitations of claim 15.

23.2. The art of MochaPocketTN5250 is directed to software to emulate a 5250 terminal on a handheld computer (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

23.3. The art of Comp is directed to compressed message exchange initiated by basic command accompanied by enhancement code (***Title***).

23.4. Mills does not specifically teach that the program code is configured to control the handheld computer to emulate a 5250-compatible console that communicates with an AS/400-compatible midrange computer.

23.5. Comp appears to teach a 5250-compatible console that communicates with an AS/400-compatible midrange computer (***figure 6; and column 4, lines 55 – 68; and column 5, lines 1 – 25***).

23.6. MochaPocketTN5250 appears to teach configuring a handheld computer to emulate a 5250-compatible console (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

23.7. The motivation to use the art of Comp with the art of Mills is the ability to increase the communications speeds with minimal upgrading of components (***Comp, column 2, lines 15 – 24***).

23.8. The motivation to use the art of MochaPocketTN5250 with the art of Mills are the benefits versatility and portability by using a handheld computer to replace a fixed workstation.

24. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870) and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and common knowledge in the art, in view of Handspring ("Development kit for Handspring Handheld Computers Release 1.0", 1999, Handspring).

24.1. The art of Handspring is directed toward electrical, mechanical, and software development for the Visor handheld computer (***page section I-1, section I Introduction***).

24.2. Mills does not specifically teach the module of claim 15, further comprising a housing and module interface, wherein the housing has a form factor, and the module interface is configured, to couple to a Springboard-compatible port on a Visor-compatible handheld computer.

24.3. Handspring appears to teach a housing and module interface, wherein the housing has a form factor, and the module interface is configured, to couple to a Springboard-compatible port on a Visor-compatible handheld computer (***section V: Mechanical Information, Chapter 3 Springboard standard module, page sectionV-4***).

24.4. The motivation to use the art of Handspring with the art of Mills is that a Visor handheld computer is a commercially available product with development documentation that makes it a good candidate for implementing the emulator.

25. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870) and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and common knowledge in the art, in view of Kauffman (U.S. Patent Number 6,633,916).

25.1. The art of Kauffman is directed toward a method and apparatus for virtual resource handling in a multi-processor computer (***Title***), including providing a console (***column 7, lines 45 – 60***).

25.2. Mills does not specifically teach the module of claim 15, wherein the program code is configured to emulate a console that communicates with a logical partition in a logically-partitioned multi-user computer.

25.3. Kauffman appears to teach that the program code is configured to emulate a console that communicates with a logical partition in a logically-partitioned multi-user computer (***figure 2; and column 7, lines 45 – 60; and column 1, lines 15 – 32***).

25.4. The motivation to use the art of Kauffman with the art of Mills is the statement in Kauffman that a personal computer can be used as the console (***column 7, lines 55 – 60***), which provides the benefit of a versatile multi-purpose device compared to a fixed terminal.

26. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870) and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and common knowledge in the art, in view of Laity (U.S. Patent Publication Number 2001/0000161).

26.1. Claim 21 is a dependent claim of claim 15, and thereby inherits all of the rejected limitations of claim 15.

26.2. The art of Laity is directed to a PCMCIA card with integrated receptacles for receiving standard communications plugs (***Title***).

26.3. Mills does not specifically teach a second network interface configured to receive a second network connector.

26.4. Laity appears to teach a second network interface configured to receive a second network connector (***figure 1; and paragraph [0003], especially starting at the sentence that starts with, "Presently, Type II cards are used . . . "***).

26.5. The motivation to use the art of Laity with the art of Mills is the benefit of not needing to swap cables when performing system administration on two logical partitions, as known by the ordinary artisan at the time of invention. Additionally, it allows two sessions

to be carried on simultaneously on the emulated console, as known by the ordinary artisan at the time of invention.

27. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), and common knowledge in the art.

27.1. Mills does not specifically teach that the program code is configured to control the handheld computer to emulate first and second consoles that respectively communicate with first and second logical partitions in a logically-partitioned multi-user computer over the first and second network interfaces.

27.2. Official Notice is taken that it was common knowledge in the art at the time of invention to simultaneously authenticate a user with two separate logon sessions on a single computer using a single terminal. The motivation would have been the benefit of allowing easy coordination of related actions being implemented through the two logon sessions.

28. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), in view of MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), further in view of common knowledge in the art.

28.1. The art of Mills is directed to a plug-in expansion card for a handheld computer that incorporates both a memory expansion card and an IO connector (***Abstract, and figure 7***).

28.2. The art of MochaPocketTN5250 is directed to software to emulate a 5250 terminal on a handheld computer (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

28.3. Mills appears to teach a handheld computer including a module interface (***figure 7, and figure 8***).

28.4. Mills appears to teach a plug-in module coupled to the module interface of the handheld computer (***figure 7, and figure 8***), the plug-in module including a network interface configured to receive a network connector (***figure 8, elements 140 and "Internet, or other network"; and column 5, lines 59 – 67***), a memory (***figure 7, and figure 8***), and program code resident in the memory (***column 7, lines 30 – 32***).

28.5. Mills does not specifically teach program code resident in the memory ***and configured to control a handheld computer to emulate a console that communicates with a multi-user computer over the network interface***.

28.6. MochaPocketTN5250 appears to teach configuring a handheld computer to emulate a console using program code (***paragraph labeled "Application Description:"; and section labeled "Reviews"***).

28.7. Official Notice is taken that it was old and well known in the art at the time of invention to communicate with a multi-user computer over a network interface (e.g., a file server), as shown in Mills, figure 8, box labeled "Internet, or other Network". The motivation would have been the benefit of allowing multiple terminals to remotely access a common central resource thereby reducing the expense of duplication of equipment and data, and allowing data sharing, as was common knowledge to the ordinary artisan at the time of invention.

28.8. The motivation to use the art of MochaPocketTN5250 with the art of Mills would have been the benefits recited in Mills of providing both I/O and memory functions in a single closed-case removable expansion card, which increases the expansion functional density for portable computer hosts, such as PDAs. That is, it increases the amount of

functionality that can be accommodated within a given volume allocation for expansion devices. It also provides a viable alternative to 2-slot implementations (**column 3, lines 55 – 67; and column 4, lines 1 – 2**). Also, the use of removable memory devices may provide the best solution to rapidly reconfiguring an application-specific expansion card to initiate a large program or use large data sets. The use of labeled, color-coded, or otherwise distinctive, removable memory devices also may provide the best solution for ease of use for users needing to select a particular program or data set from many for reconfiguring an application specific expansion card (**column 7, lines 54 – 63**). An additional benefit is that the invention of Mills enables general-purpose portable hosts to perform application specific functions requiring dedicated ROM (**column 7, lines 25 – 30**).

28.9. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of MochaPocketTN5250 and common knowledge in the art with the art of Mills to produce the claimed invention.

29. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent Number 6,353,870), and Kauffman (U.S. Patent Number 6,633,916), and MochaPocketTN5250 (Document provided by applicant on the Information Disclosure Statement, item B.S), further in view of Laity (U.S. Patent Publication Number 2001/0000161), further in view of common knowledge in the art.

29.1. Mills does not specifically teach:

29.1.1. Wherein the first adapter is allocated to the first logical partition, wherein the logically-partitioned computer includes a second adapter allocated to the second logical partition, wherein the plug-in module includes first and second network interfaces, wherein the first cable is coupled to the first network interface.

29.1.2. Connecting a second cable between the second adapter and the second network interface.

29.1.3. Authenticating a user with each of the first and second logical partitions via the plug-in modules while the first and second cables are coupled respectively between the first and second adapters and the first and second interfaces, wherein the first and second system administration operations are performed while the user is concurrently authenticated to the first and second logical partitions.

29.1.4. Kauffman appears to teach that the first adapter is allocated to the first logical partition, wherein the logically-partitioned computer includes a second adapter allocated to the second logical partition (***figure 2***).

29.2. Laity appears to teach a plug-in module that includes a first and second network interfaces, wherein the first cable is coupled to the first network interface (***figure 1; and paragraph [0003], especially the sentence that starts with, "Presently, Type II cards are used . . . "***).

29.2.1. Regarding (***figure 1; and paragraph [0003], especially the sentence that starts with, "Presently, Type II cards are used . . . "***); it would have been obvious to have the first cable coupled between the first adapter and first network interface.

29.3. Laity appears to teach connecting a second cable between the second adapter and the second network interface (***figure 1; and paragraph [0003], especially the sentence that starts with, "Presently, Type II cards are used . . . "***).

29.3.1. Regarding (***figure 1; and paragraph [0003], especially the sentence that starts with, "Presently, Type II cards are used . . . "***); it would have been

obvious that prior to performing the second system administration operation, a second cable must be connected between the second adapter and the second network interface.

29.4. Official Notice is taken that it was common knowledge in the art at the time of invention to simultaneously authenticate a user with two separate logon sessions on a single computer using a single terminal. The motivation would have been the benefit of allowing easy coordination of related actions being implemented through the two logon sessions.

29.5. The motivation to use the art of Laity with the art of Mills would have been the benefit of not needing to swap cables when performing system administration on two logical partitions, as was known to the ordinary artisan at the time of invention. Additionally, it allows two sessions to be carried on simultaneously on the emulated console.

29.6. Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Laity and common knowledge in the art with the art of Mills and Kauffman and MochaPocketTN5250 to produce the claimed invention.

30. Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Allowable Subject Matter

31. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell L. Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday – Friday 10:00 AM – 6:30 PM.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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